

In re: Cesaroni et al.  
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#### REMARKS

Claim 8 has been amended to insert a period and Claim 15 has been amended for clarification.

In the Official Action, the Examiner has made a 7-way restriction requirement in this application, between the following groups:

I – Claims 9 to 14, drawn to a hybrid propulsion system wherein the aqueous solution of hydrogen peroxide additionally contains an additional oxidizer;

II – Claims 15 to 17, drawn to a hybrid propulsion system wherein the fuel grain contains a metal;

III –Claims 19 and 20, drawn to a hybrid propulsion system wherein the fuel grain contains a solid oxidizer;

IV – Claims 21 and 22, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic filler;

V – Claims 23 and 24, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic plasticizer;

VI – Claims 25 and 26, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic polymer; and

VII – Claim 27, drawn to a hybrid propulsion system wherein the fuel grain contains a ballistic or processing modifier.

Claims 1 to 8, 18, 28 and 29 are linking claims and will be examined with the claims of the elected invention.

The Examiner has also made a complex multi-way election of species requirement among 48 allegedly independent and distinct species.

In order to be fully responsive to the Official Action, Applicant provisionally elects the claims of Group I (Claims 9 to 14) and Species E, wherein the catalyst in the injector system is

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nickel coated with a combination of silver and samarium nitrate; and Species S, wherein the oxidizer includes nitrates.

In addition, since Claim 18 is considered a linking claim, which depends from Claim 15, then Claim 15 should also be examined with the claims of the elected invention and subsequently, Claims 16 and 17. In this case, the Applicant elects Species AA, wherein the hydro-reactive metal is a hydride form, which hydride form is aluminum hydride.

Applicant, once again, traverses this requirement for restriction and election of species on the grounds that the Examiner has not provided a proper basis for the 7 way restriction. The Examiner contends that restriction between the inventions defined by the claims of Groups I – VII is justified on the basis that the inventions are related as subcombinations disclosed as useable together in a single combination, citing MPEP § 806.05(d).

However, this MPEP section is not applicable to the claims of record. This section is only applicable when there are two or more claimed subcombinations. In such event, the Examiner must show, by way of example, that one of the subcombinations has utility other than in the disclosed combination.

In the present application, the claims which are subject to the restriction requirement are all directed to the same invention, namely a hybrid propulsion system. The claims of record define this hybrid propulsion system by reciting a combination of elements.

More specifically, independent Claim 1 is directed to the combination of the following elements: (1) a liquid fuel section containing an aqueous solution of hydrogen peroxide, (2) a solid fuel section containing a fuel grain, and (3) an injector system located between the liquid fuel section and the solid fuel section.

Referring to the claims of Group I, these claims are all directed to the same combination of elements. Claims 9 to 14 are all dependent, directly or indirectly, from independent claim 1. Thus, by definition, these claims have all of the limitations of claim 1. As such, they are not subcombination claims, but instead are directed to the same combination of elements as claim 1.

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Claims 9 to 14 of Group I simply further define or limit the combination of elements recited in Claim 1.

The claims of Group II, namely Claims 15-17, are directed to the same combination of elements as the claims of Group I, and simply further define or limit those elements. Because claim 15 is dependent from claim 1, it also is directed to the same combination of elements which are recited in claim 1, namely: (1) a liquid fuel section containing an aqueous solution of hydrogen peroxide, (2) a solid fuel section containing a fuel grain, and (3) an injector system located between the liquid fuel section and the solid fuel section. Claim 15 simply further limits claim 1 by specifying that the fuel grain contains a metal. *[W/Jay]*

Likewise, the claims of Groups III – VII are directed to the same combination of elements as the claims of Groups I and II. These claims simply further define the nature of the fuel grain.

From this analysis, it should be evident that the claims of record are not directed to two or more subcombinations. They are all directed to the same combination. For this reason, the restriction basis of MPEP 806.05(d) is not applicable.

Furthermore, this MPEP section requires that the Examiner must show, by way of example, that one of the claimed subcombinations has utility other than in the disclosed combination. The Examiner has made no such showing. In the present instance, all of the claims presented have utility in the disclosed and claimed combination of a hybrid propulsion system. The Examiner has not shown that any of the so-called subcombinations has utility other than in the disclosed combination of a hybrid propulsion system.

According to MPEP 806.05(d) the burden is on the Examiner to provide an example of another use. Further, in the absence of a documented alternative use, the Examiner must withdraw the restriction requirement. The Examiner's statement that "each of the other inventions likewise does not require the features of any of the remaining inventions for its operation" is not responsive to the requirements prescribed by MPEP 806.05(d). This does not demonstrate that the so-called subcombination invention has utility other than in the disclosed

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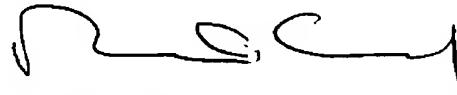
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combination. Moreover, this statement evidences a complete lack of understanding of the difference between combination claims and subcombination claims, and the specific requirements set forth by MPEP 806.05(d) for substantiating the requirement for restriction.

Furthermore, as noted in the previous traverse, the Examiner has failed to properly demonstrate that the inventions, as grouped, are distinct from one another and that there is a separate classification, status or field of search for the separate groups of claims.

For the reasons noted, the 7-way requirement for restriction is without any proper basis and should be withdrawn.

Respectfully submitted,

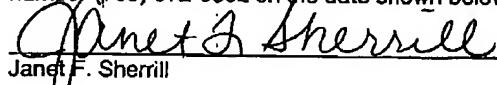


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